CLAIM AMENDMENTS

1. *(ORIGINAL)* An apparatus including a filter circuit for filtering a control voltage used to control varactor circuitry in a voltage controlled oscillator, comprising:

a power supply terminal that conveys a power supply voltage having a magnitude and polarity relative to a reference potential;

a control terminal that conveys a control voltage for varactor circuitry, wherein, relative to said reference potential, said control voltage has a polarity equal to said power supply voltage polarity and a magnitude less than or equal to said power supply voltage magnitude; and

shunt filter circuitry, connected between said power supply and control terminals, that filters said control voltage.

2. *(ORIGINAL)* The apparatus of claim 1, wherein said shunt filter circuitry comprises a low pass filter circuit.

3. *(ORIGINAL)* The apparatus of claim 1, further comprising varactor circuitry, connected between said power supply and control terminals, that in response to said control voltage exhibits a voltage controlled capacitance.

4. *(ORIGINAL)* The apparatus of claim 3, wherein said varactor circuitry comprises a diode.

5. *(ORIGINAL)* The apparatus of claim 3, wherein said varactor circuitry comprises an insulated gate field effect transistor.

6. *(ORIGINAL)* The apparatus of claim 1, further comprising charge pump circuitry, connected to said control terminal, that in cooperation with said shunt filter

circuitry generates said control voltage.

7. *(ORIGINAL)* The apparatus of claim 1, further comprising:

a reference terminal that establishes said reference potential; and

voltage controlled oscillator circuitry, connected between said power supply, reference and control terminals, that in response to said control voltage generates a voltage controlled oscillation signal.

8. *(CURRENTLY AMENDED)* ~~The apparatus of claim 7, wherein said voltage controlled oscillator circuitry comprises:~~ An apparatus including a filter circuit for filtering a control voltage used to control varactor circuitry in a voltage controlled oscillator, comprising:

a power supply terminal that conveys a power supply voltage having a magnitude and polarity relative to a reference potential;

a control terminal that conveys a control voltage for varactor circuitry, wherein, relative to said reference potential, said control voltage has a polarity equal to said power supply voltage polarity and a magnitude less than or equal to said power supply voltage magnitude;

shunt filter circuitry, connected between said power supply and control terminals, that filters said control voltage;

a reference terminal that establishes said reference potential; and

voltage controlled oscillator circuitry, connected between said power supply, reference and control terminals, that in response to said control voltage generates a voltage controlled oscillation signal, wherein said voltage controlled oscillator circuitry comprises

bias circuitry, connected between said power supply and reference terminals, that in response to said power supply voltage, generates a bias signal~~;~~, and

resonant circuitry, connected between selected ones of said power supply terminal, reference terminal, control terminal and bias circuitry, that in response to said bias

signal and said control voltage generates said voltage controlled oscillation signal.

9. *(ORIGINAL)* The apparatus of claim 8, wherein said resonant circuitry comprises varactor circuitry, connected between said power supply and control terminals, that in response to said control voltage exhibits a voltage controlled capacitance.

10. *(ORIGINAL)* The apparatus of claim 9, wherein said varactor circuitry comprises a diode.

11. *(ORIGINAL)* The apparatus of claim 9, wherein said varactor circuitry comprises an insulated gate field effect transistor.

12. *(ORIGINAL)* The apparatus of claim 7, further comprising charge pump circuitry, connected to said control terminal, that in cooperation with said shunt filter circuitry generates said control voltage.

13. *(ORIGINAL)* An apparatus including a filter circuit for filtering a control voltage used to control varactor circuitry in a voltage controlled oscillator, comprising:

power supply means for conveying a power supply voltage having a magnitude and polarity relative to a reference potential;

control means for conveying a control voltage for varactor circuitry, wherein, relative to said reference potential, said control voltage has a polarity equal to said power supply voltage polarity and a magnitude less than or equal to said power supply voltage magnitude; and

shunt filter means, for filtering said control voltage between said power supply and control terminals.

14. *(ORIGINAL)* The apparatus of claim 13, further comprising varactor means

for responding to said control voltage by exhibiting a voltage controlled capacitance.

15. *(ORIGINAL)* The apparatus of claim 13, further comprising charge pump means for generating said control voltage in cooperation with said shunt filter means.

16. *(ORIGINAL)* The apparatus of claim 13, further comprising:

reference means for establishing said reference potential; and

voltage controlled oscillator means for responding to said control voltage by generating a voltage controlled oscillation signal.

17. *(ORIGINAL)* The apparatus of claim 16, wherein said voltage controlled oscillator means comprises varactor means for responding to said control voltage by exhibiting a voltage controlled capacitance.

18. *(ORIGINAL)* The apparatus of claim 16, further comprising charge pump means for generating said control voltage in cooperation with said shunt filter means.